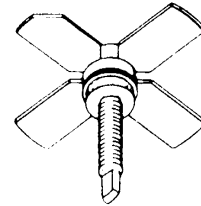


MS1581

RF & MICROWAVE TRANSISTORS UHF TV/LINEAR APPLICATIONS

Features

- 860 MHz
- 25 VOLTS
- $P_{OUT} = 4.0$ WATTS
- $G_P = 7.0$ dB MINIMUM
- GOLD METALLIZATION
- COMMON EMITTER CONFIGURATION

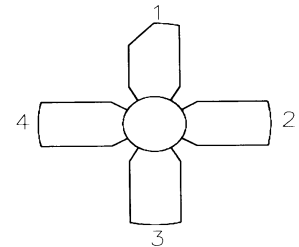


.280 4L STUD (M122)
epoxy sealed

DESCRIPTION:

The MS1581 is a silicon NPN bipolar transistor specifically designed for high linearity UHF TV driver applications. Gold metallization and emitter ballasting assure high reliability under Class A linear operation.

PIN CONNECTION



1. Collector 3. Base
2. Emitter 4. Emitter

ABSOLUTE MAXIMUM RATINGS (T_{case} = 25°C)

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage	45	V
V _{CEO}	Collector-Emitter Voltage	25	V
V _{EBO}	Emitter-Base Voltage	4	V
P _{DISS}	Power Dissipation	31.8	W
I _C	Device Current	1.6	A
T _J	Junction Temperature	+200	°C
T _{STG}	Storage Temperature	-65 to +150	°C

Thermal Data

R _{TH(J-C)}	Thermal Resistance Junction-case	5.5	°C/W
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MS1581

ELECTRICAL SPECIFICATIONS (T_{case} = 25°C)

STATIC

Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
BV _{CBO}	I _C = 10 mA	I _E = 0 mA	45	---	---	V
BV _{CEO}	I _C = 20 mA	I _E = 0 mA	25	---	---	V
BV _{EBO}	I _E = 2.5 mA	I _E = 0 mA	3.0	---	---	V
I _{CBO}	V _{CB} = 28 V	I _E = 0 mA	---	---	0.9	mA
HFE	V _{CE} = 20 V	I _C = 500 mA	10	---	200	---

DYNAMIC

Symbol	Test Conditions			Value			Unit
				Min.	Typ.	Max.	
P _{OUT}	f = 860 MHz	P _{IN} = 8 W	V _{CE} = 25 V	4.0	---	---	W
G _P	f = 860 MHz	P _{IN} = 8 W	V _{CE} = 25 V	7.0	---	---	dB
IMD ₃	P _{SYNC} = 4 W	P _{IN} = 8 W	V _{CE} = 25 V	---	---	-60	dBc
C _{OB}	f = 1 MHz	V _{CB} = 25 V		---	---	20	pf

Conditions: V_{CE} = 25 V I_C = 850 mA

MS1581

PACKAGE MECHANICAL DATA

